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Environmental Fact Sheet

EPA Releases RCRA Waste Minimization PBT Chemical List

The Environmental Protection Agency (EPA) is releasing for public comment a draft list of certain persistent, bio-accumulative, and toxic (PBT) chemicals that may be present in some industrial hazardous wastes regulated under the Resource Conservation and Recovery Act (RCRA). These chemicals will be the focus of source reduction and recycling activities aimed at reducing their presence in hazardous waste.

Why is EPA taking this action?

EPA believes publishing this list will raise government, industry, and public awareness of the potential effects of these chemicals in the environment and focus coordinated public and private actions to reduce the generation of these chemicals in hazardous waste by 50 percent by the year 2005 through source reduction and recycling.

Why are PBT chemicals a national concern?

PBT chemicals do not readily break down or decrease in potency after they are released to the environment, even if released in very small, legally permitted quantities. Over time, these chemicals are likely to accumulate in soils or other environmental media, be absorbed or ingested by plants and animals, accumulate in animal and plant tissue, pass through the food chain, and potentially cause long-term human health or ecological problems (such as cancer and birth defects in humans or reduced ecological populations). For this reason, PBT chemicals are a national and international environmental concern long after they are used, generated in hazardous waste, or released to the environment.

How and why was the List developed?

EPA believes there is clear intent in RCRA, the Clean Air Act, and the Pollution Prevention Act to focus public attention on source reduction and recycling as preferred environmental management approaches over the treatment, disposal, or release of harmful chemicals to the environment. Section 1003(b) of the 1994 Hazardous and Solid Waste Amendments (HSWA) states as national policy,
". . . wherever feasible, the generation of hazardous waste is to be reduced or eliminated as expeditiously as possible."
The Clean Air Act and the Pollution Prevention Act contain national policies that focus on pollution prevention and recycling rather than forms of toxic waste management.

There is also clear intent in RCRA and in the Emergency Planning and Community Right to Know Act of 1986 (EPCRA) to inform the public of toxic releases to the environment and national progress in reducing these releases at the source through source reduction and recycling. RCRA Section 3002(a)(6) requires the regulated community to submit reports to EPA on the volume and toxicity of hazardous wastes generated and their efforts to reduce the generation of these wastes (referred to in RCRA as "waste minimization"). EPCRA requires the largest users of toxic chemicals in the regulated community to report releases of these chemicals to EPA and requires EPA to make this information publicly available through the Toxic Release Inventory (TRI), a computerized database containing toxic release information from approximately 22,000 industrial facilities.

States, industry, environmental groups, and citizens advised EPA in 1994 that waste minimization should consist of the following:

- Reduce, as a nation, the presence of the most persistent, bioaccumulative, and toxic chemicals in industrial hazardous wastes by 25 percent by the year 2000 and by 50 percent by the year 2005.

- Avoid transferring these chemicals across environmental media.

- Ensure that these chemicals are reduced at their source whenever possible, or, when not possible, that they are recycled in an environmentally sound manner.

To address these recommendations, EPA first developed the Waste Minimization Prioritization Tool, which scores thousands of chemicals based on their mass generated, persistence, bioaccumulation, and toxicity. EPA then identified the chemicals of greatest concern to the RCRA program on a national basis. These are chemicals that: are very persistent, bioaccumulative, and toxic; are generated in large volumes or by many facilities; are present in soils and sediments; and are hard to manage, clean up, or pose other RCRA concerns. The proposed RCRA PBT List contains 53 chemicals that ranked highest for these factors from a national perspective. EPA recognizes that other PBT chemicals may be identified as priorities by regional, state, or local organizations or companies, and encourages coordinated efforts to address the reduction of those chemicals as well.

How will the List be used?

EPA will use the RCRA PBT List to focus federal, state, industry, and public attention on actions that reduce the generation of these PBT chemicals in RCRA hazardous waste by 50 percent by 2005. EPA will publish national progress reports to focus attention on progress toward our national goals. EPA will also work with states, industry, and environmental groups through a variety of approaches, including workshops, technical assistance programs, partnership agreements, regulatory reinvention projects, and other strategies to promote progress toward the 2005 goal.

Is the RCRA PBT Chemical List part of the Agency's Multimedia PBT Strategy?

Yes. Much like EPA's Partners for the Environment works to integrate the nearly 30 voluntary pollution prevention programs in the Agency, the PBT Strategy will ultimately work to integrate all of EPA's activities focused on priority PBTs, including the RCRA PBT List. The PBT Strategy will also measure collective Agency progress on reducing uses and releases of PBTs in an unprecedented way, and is initially

focusing on reducing or eliminating the releases and uses of 12 Level One substances highlighted by the Canada-U.S. Great Lakes Binational Toxics Strategy (five of those Level One chemicals appear on the RCRA PBT Chemical List). To avoid future PBT problems, the PBT Strategy also aims to prevent the introduction of new PBTs in commerce that may pose an unreasonable risk. The PBT Strategy has discussed selecting more chemicals for the existing RCRA PBT List, should those candidates meet the proposed PBT Strategy selection criterion.

How can I get a copy of the RCRA PBT List?

The List notice and this fact sheet are available in electronic format on the Internet at <http://www.epa.gov/wastemin>. For additional information or to order paper copies of any documents, call the RCRA Hotline. Callers within the Washington Metropolitan Area must dial 703-412-9810 or TDD 703-412-3323 (hearing impaired). Long-distance callers may call 1-800-424-9346 or TDD 1-800-553-7672. The RCRA Hotline operates weekdays, 9:00 a.m. to 6:00 p.m. Write to the RCRA Information Center (5305W), US EPA, 401 M Street, SW, Washington, DC 20460.

Draft RCRA PBT List

No rank ordering is intended in this List; the List treats these chemicals as equal environmental priorities.

CAS No.	Chemical Name	CAS No.	Chemical Name
75343	1,1-Dichloroethane	206440	Fluoranthene
71556	1,1,1-Trichloroethane	86737	Fluorene
95501	1,2-Dichlorobenzene	none	Furans (PCDF)
120821	1,2,4-Trichlorobenzene	76448	Heptachlor
95943	1,2,4,5-Tetrachlorobenzene	1024573	Heptachlor epoxide
541731	1,3-Dichlorobenzene	118741	Hexachlorobenzene
106467	1,4-Dichlorobenzene	87683	Hexachlorobutadiene
91576	2-Methylnaphthalene	58899	Hexachlorocyclohexane, gamma-
95954	2,4,5-Trichlorophenol	7439921	Lead
101553	4-Bromophenyl phenyl	7439976	Mercury
83329	Acenaphthene	72435	Methoxychlor
208968	Acenaphthylene	91203	Naphthalene
120127	Anthracene	7440020	Nickel
7440360	Antimony	98953	Nitrobenzene
7440382	Arsenic	29082744	Octachlorostyrene
191242	Benzo(g,h,i)perylene	608935	Pentachlorobenzene
7440417	Beryllium	82688	Pentachloronitrobenzene
117817	Bis(2-ethyhexyl	87865	Pentachlorophenol
85687	Butyl benzyl phthalate	85018	Phenanthrene
7440439	Cadmium	732263	Phenol, 2,4,6-tris (1,1-dimethylethyl)-
67663	Chloroform	108952	Phenol
7440473	Chromium	none	Polycyclic aromatic compounds
7440508	Copper	129000	Pyrene
57125	Cyanide	7782492	Selenium
84742	Dibutyl phthalate	7440666	Zinc
none	Dioxins (PCDD)		
959988	Endosulfan, alpha-		
33213659	Endosulfan, beta-		